

# Hot Quarks 2008

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## Monday, August 18th:

### Morning session: Heavy Flavor Production

Chair: Jamie Nagle

08:30 Welcome

08:45 Kirill Tuchin (Iowa State & RBRC)

*Review of Saturation Physics and Heavy Quark Production at High Parton Densities*

09:20 Stephen L. Baumgart (Yale University)

*Recent charm measurements through hadronic decay channels with STAR at RHIC*

09:40 Sebastien G. Gadrat (LPSC Grenoble)

*Consequences of  $\Lambda_c/D$  enhancement on the non-photonic electron nuclear modification factor*

10:00 *coffee break*

10:30 Manceau Loic (LPC CNRS IN2P3)

*Measurement of the B-hadron production cross section from single muons with ALICE*

10:50 Cyrille Marquet (Columbia University)

*Heavy quark energy-loss in a finite-extended strongly coupled SYM plasma*

11:10 Philip D. Allfrey (University of Auckland)

*Heavy Flavor Measurements with CMS*

11:30 Sergey Butsyk (Los Alamos National Laboratory)

*The Forward Vertex upgrade detector for PHENIX*

11:50 *discussion forum*

12:30 *lunch*

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### Afternoon session: Hydrodynamics, Transport Theory & Coefficients

Chair: Steffen A. Bass

17:00 Bin Zhang (Arkansas State University)

*Review of Partonic Transport Calculations*

17:35 Huichao Song (The Ohio State University)

*Viscous hydrodynamics for relativistic heavy-ion collisions*

17:55 Hannah Petersen (Frankfurt University)

*First results from an integrated Boltzmann + hydrodynamics hybrid approach*

18:15 *coffee break*

18:30 Daniel Fernandez-Fraile (University Complutense of Madrid)

*Chiral Perturbation Theory in Heavy-Ion Collisions: transport coefficients and resonances*

18:50 Christopher A. Rosen (University of Colorado)

*Unraveling AdS/CFT: what string theory tells us about the Quark-Gluon-Plasma*

19:10 Nasser Demir (Duke University)

*Shear viscosity of hadronic matter from microscopic transport models*

19:30 *discussion forum*

20:15 *dinner*

## Tuesday, August 19th:

### Morning Session: QCD Matter

Chair: Marzia Nardi

08:30 Masakiyo Kitazawa (Osaka University)  
*Review of Lattice QCD*

09:05 Yoshimasa Hidaka (RBRC)  
*Transport Coefficients in semi-QGP*

09:25 Hirotsugu Fujii (Tokyo University)  
*Dynamic aspects of the QCD critical point*

09:45 *coffee break*

10:15 Eugenio Megias (Brookhaven National Laboratory)  
*Implications of the dimension two gluon condensate on the deconfined phase of QCD*

10:35 Jingyi Chao (North Carolina State University)  
*Color Superconductivity in Dense Quark Matter*

10:55 Shu Lin (Stonybrook University)  
*Gravity dual of QGP formation and thermalization*

11:15 *discussion forum*

12:30 *lunch*

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### Afternoon: Photons and Leptons

Chair: Alessandro De Falco

17:20 Ben-Wei Zhang (Los Alamos National Laboratory)  
*Reaction operator approach to medium-induced photon bremsstrahlung*

17:40 Bjoern Baeuchle (Frankfurt University)  
*Direct Photons in Heavy-Ion Collisions from Microscopic Transport Theory and Fluid Dynamics*

18:00 *coffee break*

18:30 Malgorzata Sudol (INPO, Orsay)  
*Dilepton Production in Elementary and HI Collisions with HADES*

18:50 Gergely G. Barnafoldi (Kent State University)  
*Isospin Effects in Relativistic Heavy-Ion Collisions*

19:10 *discussion forum*

20:00 *dinner*

## Wednesday, August 20th:

### Morning session: Quarkonia

Chair: Manuel Calderon de la Barca Sanchez

08:30 Peter Petreczky (Brookhaven National Laboratory)  
*Review on Quarkonium Suppression*

09:05 Debasish Das (UC Davis)  
 *$\Upsilon$  production in STAR*

09:25 Loren A. Linden-Levy (University of Colorado)  
*How well do we really understand cold nuclear matter?*

09:45 *coffee break*

10:15 Andry M. Rakotozafindrabe (CEA Saclay, IRFU/SPhN)  
 *$J/\Psi$  production: intrinsic vs. extrinsic transverse momentum and its influence on shadowing effects*

10:35 Matthew Wysocki (University of Colorado)  
 *$J/\Psi$  Measurements in A+A Collisions at PHENIX*

10:55 Clint F. Young (Stonybrook University)  
*Charmonium in strongly-coupled Quark-Gluon-Plasma*

11:15 Xingbo Zhao (Texas A&M University)  
*Transverse momentum of  $J/\Psi$  in heavy-ion collisions*

11:35 *discussion forum*

12:30 *lunch*

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### Afternoon session: Jets

Chair: Carlos Salgado

17:00 Sevil Salur (Lawrence Berkeley National Laboratory)  
*Review on Jet Identification*

17:35 Andrew Adare (University of Colorado)  
*High  $p_T$  jet correlations as probe of the QGP*

17:55 Elena Bruna (Yale University)  
*Study of jet fragmentation in p+p collisions at 200 GeV in STAR*

18:15 *coffee break*

18:30 Ivan Vitev (Los Alamos National Laboratory)  
*Tomography of Jets*

18:50 Sarah Porteboef (SUBATECH Nantes)  
*Generation of complete events containing very high  $p_T$  jets*

19:10 Paloma Quiroga (University of Santiago de Compostela)  
*Medium modification of multiplicity distributions in MLLA*

19:30 *discussion forum*

20:00 *dinner*

## Thursday, August 21st:

Morning: free / excursion

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### Afternoon session: Collective Flow

Chair: Christian Kuhn

- 17:00 Arkadij Taranenko (Stonybrook University)  
*PHENIX measurements of particle species dependent flow correlations at RHIC*
- 17:20 Pradip K. Sahu (IOP Bhubaneswar)  
*Proton flow in Pb+Pb collisions at 40 AGeV*
- 17:40 Navneet K. Pruthi (Panjab University, Chandigarh)  
*Elliptic flow of jet triggered events in heavy-ion collisions at RHIC*
- 18:00 *coffee break*
- 18:30 Hiroshi Masui (Lawrence Berkeley National Laboratory)  
*Centrality dependence of unidentified charged hadron  $v_2$*
- 18:50 David T. Kettler (University of Washington, Seattle)  
*Universal centrality and collision energy trends for  $v_2$  measurement from two-dimensional angular correlations*
- 19:10 *discussion forum*
- 20:00 *dinner*

## Friday, August 22nd:

### Morning Session: High- $p_T$

Chair: Julia Velkovska

- 08:50 Essam Elhalhuli (University of Birmingham)  
*High- $p_T$  azimuthal di-hadron correlations with identified associated hadrons*
- 09:10 Ahmed M Hamed (Texas A&M University)  
*Gamma-Hadron Correlations in STAR*
- 09:30 Christina Markert (The University of Texas at Austin)  
*Resonance production from jet fragmentation*
- 09:50 *coffee break*
- 10:20 Rainer J. Fries (Texas A&M University)  
*Strangeness and other flavors as a QGP probe: a new twist on an old story*
- 10:40 Yichun Xu (USTC/BNL)  
*Identified hadron production at high  $p_T$  in  $p+p$  and  $Au+Au$  collisions*
- 11:00 Nathan Grau (Columbia University)  
*Revealing the Details of QCD Energy Loss with Jets: Prospects of ATLAS Heavy-Ion Jet Measurements*
- 11:20 Lamia Benhabib (SUBATECH, Nantes)  
 *$\pi^0$  measurement with the ALICE photon spectrometer in first  $p+p$  collisions at the LHC*
- 11:40 *discussion forum*
- 12:30 *lunch*
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### Afternoon: Future Facilities & Heavy Flavor ctd.

Chair: Helen Caines

- 17:00 Matthew Lamont (Brookhaven National Laboratory)  
*Review of Electron-Ion Collider Physics*
- 17:30 Ondrej Chvala (UC Riverside)  
*Nose-Cone Calorimeter Upgrade for PHENIX*
- 17:50 Laura Stiles (University of Colorado)  
*The CMS Zero-Degree-Calorimeter*
- 18:10 *coffee break*
- 18:30 Jan Kapitan (Nuclear Physics Institute ASCR, Praha)  
*Open Charm Measurement with the HFT at STAR*
- 18:50 Anders G. Knospe (Yale University)  
*Non-photonic electron production in  $Cu+Cu$  and  $Au+Au$  collisions at  $\sqrt{s_{NN}} = 200$  GeV*
- 19:10 Serhiy Senyukov (Universita and INFN de Torino)  
*Measurement of  $D_s$  mesons via the  $D_s \rightarrow KK\pi$  channel in ALICE*
- 19:30 *discussion forum*
- 20:00 *dinner*

## Saturday, August 23rd:

### Morning session: Bulk Matter & Strangeness

Chair: Christian Kuhn

- 09:15 Boris Hippolyte (Universite Louis Pasteur, Strasbourg)  
*Review on bulk matter physics and its future at the LHC*
- 09:50 Ronald J Belmont III (Vanderbilt University)  
*Deuteron and anti-deuteron measurements in  $\sqrt{s_{NN}} = 200$  GeV Au+Au collisions*
- 10:10 *coffee break*
- 10:40 Anthony R. Timmins (Wayne State University)  
*Strange particle production at RHIC*
- 11:00 Jaakko Manninen (Universita di Firenze & INFN Sezione di Firenze)  
*Hadron production in heavy-ion collisions*
- 11:20 Lorenzo Ferroni (Lawrence Berkeley National Laboratory)  
*Hadron gas and QGP*
- 11:40 *discussion forum*
- 12:30 *lunch*
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### Afternoon: Medium Response: Ridge and Mach Cones

Chair: Steffen A. Bass

- 17:00 Jiangyong Jia (Stonybrook University)  
*Review on 2- and 3-particle correlations at RHIC*
- 17:35 Marek K. Szuba (Warsaw University of Technology)  
*Angular Correlations of high- $p_T$  charged hadrons at the CERN SPS*
- 17:55 Christine Nattrass (Yale University)  
*System size and energy dependence of high- $p_T$  triggered correlations in STAR*
- 18:15 *coffee break*
- 18:30 Betty Abelev (University of Illinois at Chicago)  
*The Ridge in multi-strange  $\Delta\eta - \Delta\phi$  correlations in Au+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV*
- 18:50 Richard B. Neufeld (Duke University)  
*Fast Partons as a Source of Energy and Momentum in a Perturbative QGP*
- 19:10 George S. Moschelli (Wayne State University)  
*Viscous Hydrodynamic Description of Untriggered Two Particle Correlations in Nuclear Collisions*
- 19:30 *discussion forum*
- 20:00 *dinner and Klaus Kinder-Geiger Award Ceremony*